

## Appendix F: Lifecycle Savings

The investments in energy efficiency from the 2010-2012 portfolio and prior program cycles will have direct effects for a number years to come as measures continue to deliver savings. This appendix presents, by market sector, the savings through 2032 that result from 2010-2012 and prior utility portfolios. Note that the savings impacts presented in this appendix do not include results of the utilities' codes and standards advocacy efforts, which arguably have the longest term effect of any intervention as they are incorporated into building practice and appliances.

The lifecycle savings impacts from the 2010-2012 energy efficiency programs are modeled based on the energy savings estimates made during the program cycle and multiplied by the expected useful lives of the installed technologies. This modeling exercise has several limitations. First, the estimates of lifecycle savings impacts are not a comprehensive picture of the expected savings over time, as energy savings technologies installed during the 2010-2012 program cycle may be affected by changes in economic activity (affecting production rates) and/or early expiration of technologies due to either remodeling or technology failures. Second, evaluated savings in any given program cycle are based on observed post-installation conditions, they do not necessarily represent the future conditions. Third, these estimates do not include consideration of the potential for declining performance from aged equipment or long term program influence on market factors. Nevertheless, these are the best estimates currently available for

projecting the long-term potential impacts of the technologies installed and actions taken in 2010-2012.

It is important to note that none of the savings estimates included in this report, claimed or evaluated, include long term market effects of the energy efficiency programs, either prospectively or retrospectively. Long term market effects can include program effects on end user decision making (e.g. changes in knowledge and awareness), trade ally practices (e.g. changes in product availability and marketing), and changes in energy efficiency product and service characteristics (e.g. changes in product costs and features). The primary focus of the 2010-2012 impact evaluations was on the estimation of the immediate and direct impacts of the 2010-2012 programs. While several other studies have supplemented this information to understand market effects, no updates to impacts are made based on those results

The Commission reported on the sustained influence of the 2006-2008 and 2009 program activities, and these impacts are included in the illustrations in this section. While some of the technologies installed during that period are no longer providing benefits, many still are installed and operating.

The “mountain-like” shape of the electricity and demand curves show the buildup of measures and savings and then a decline over time if no new investment or activity is included. The observed decrease in energy savings over time is referred to as “measure

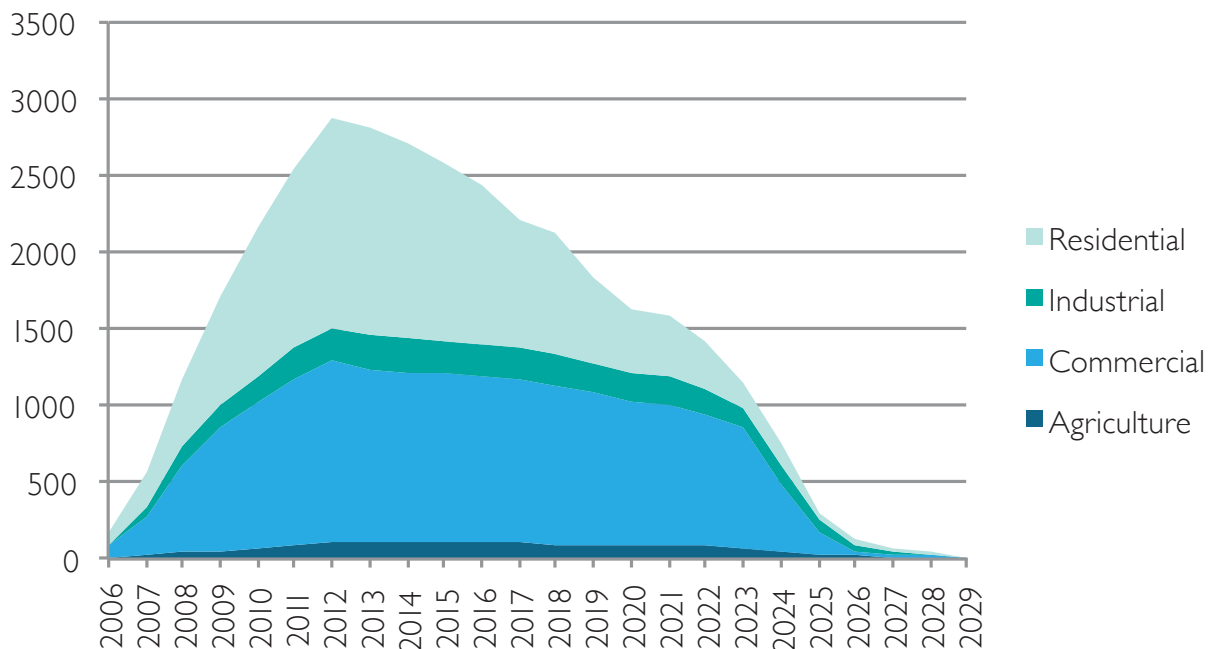
## Appendix - F | 2010 – 2012 Energy Efficiency Evaluation Report

savings decay.” The steeper the drop off after the end of the program cycle (2012) indicates a short measure life for many of the investments. A flatter curve after the end of the program cycle (observe the commercial wedge) the longer life the installed measures are expected to have, hence a longer term investment.

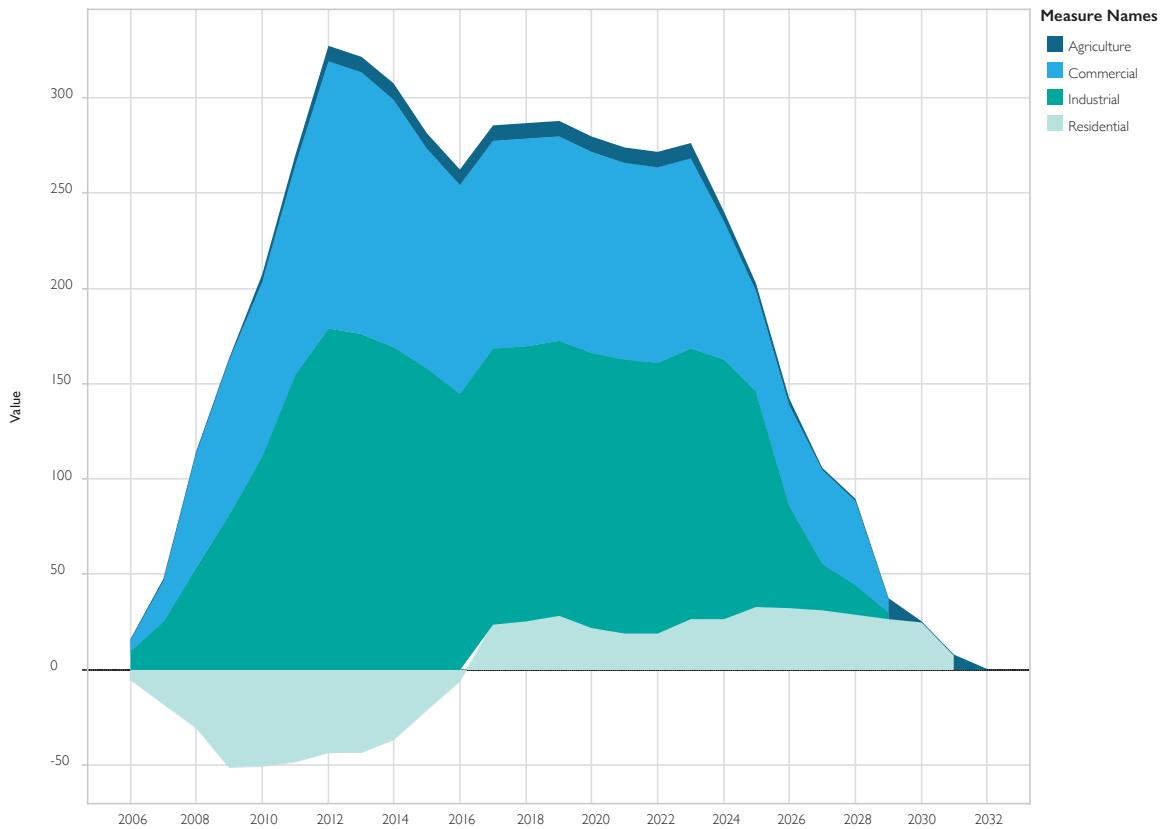
The natural gas savings have a pattern that may have a dip and then a rebound in later years. The increase in natural gas savings corresponds with the expiration

of lighting measures that cause negative HVAC interactive effects. Since no long term adoption or replacement of the lighting and appliance technologies is modeled, the savings from natural gas measures with greater longevity re-appear in the graphic around 2016.

**Figure F-I** Statewide Lifecycle Savings (GWh) by Sector, 2006-2012

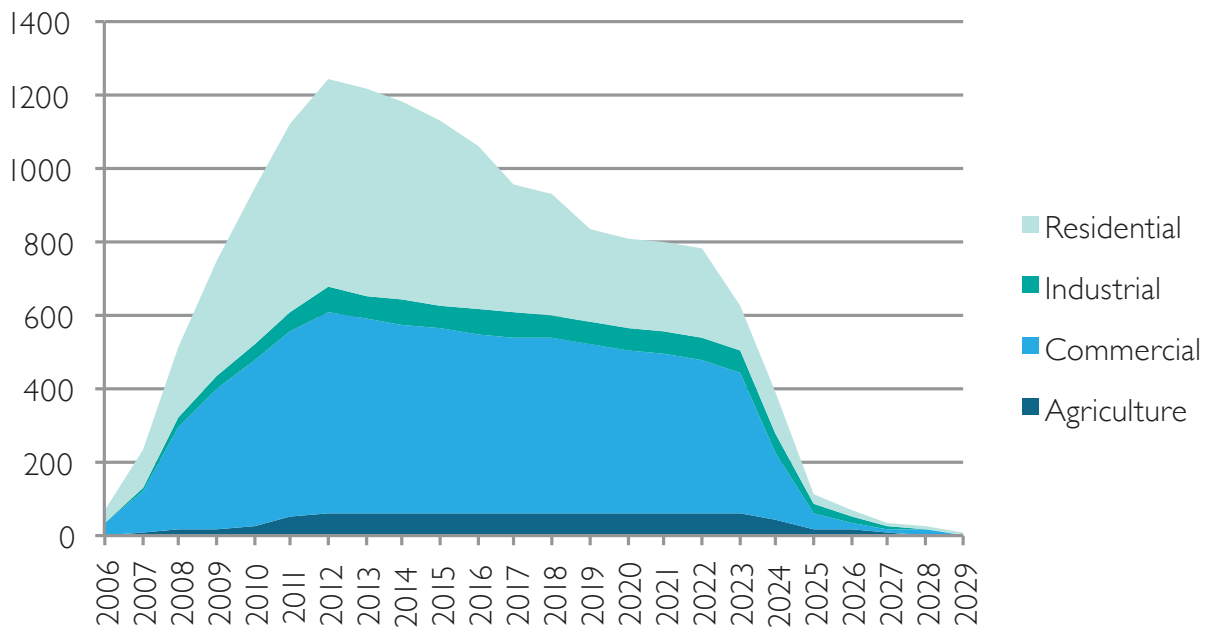


**Figure F-2** Statewide Lifecycle Savings (MMTherms) by Sector, 2006-2012

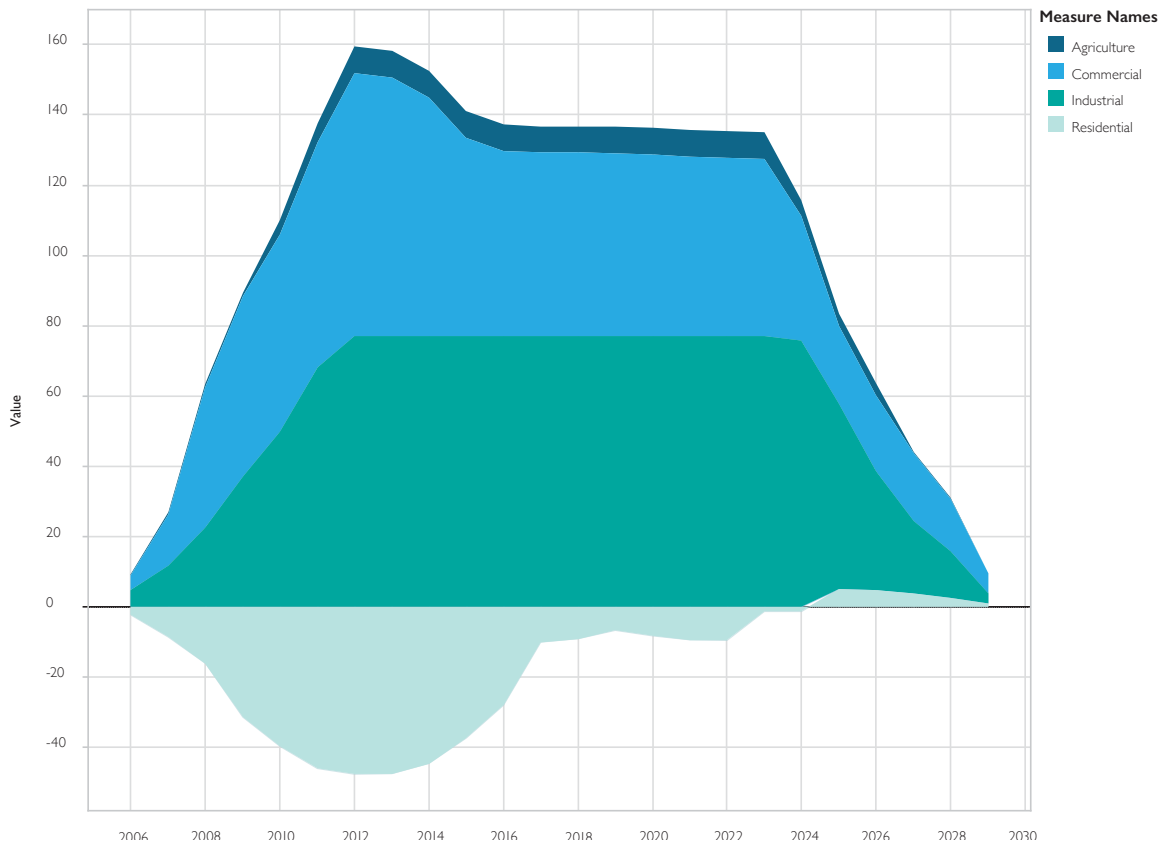


## PG&E

**Figure F-3** PG&E Lifecycle Savings (GWh) by Sector, 2006-2012

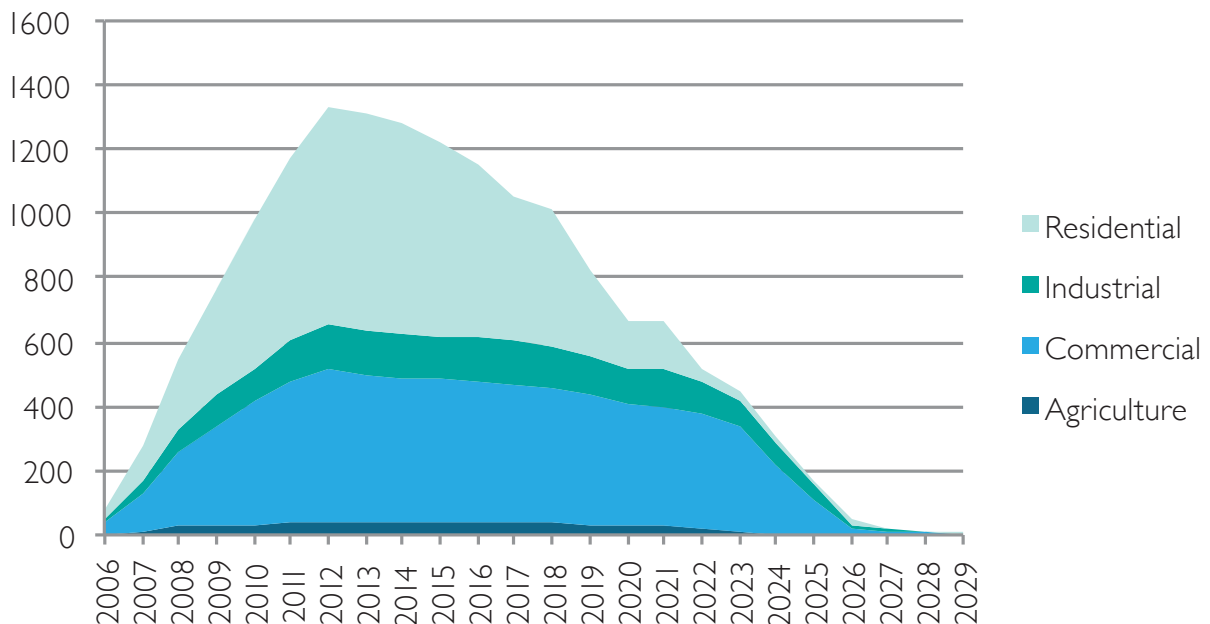


**Figure F-4** PG&E Lifecycle Savings (Therms) by Sector, 2006-2012



SCE

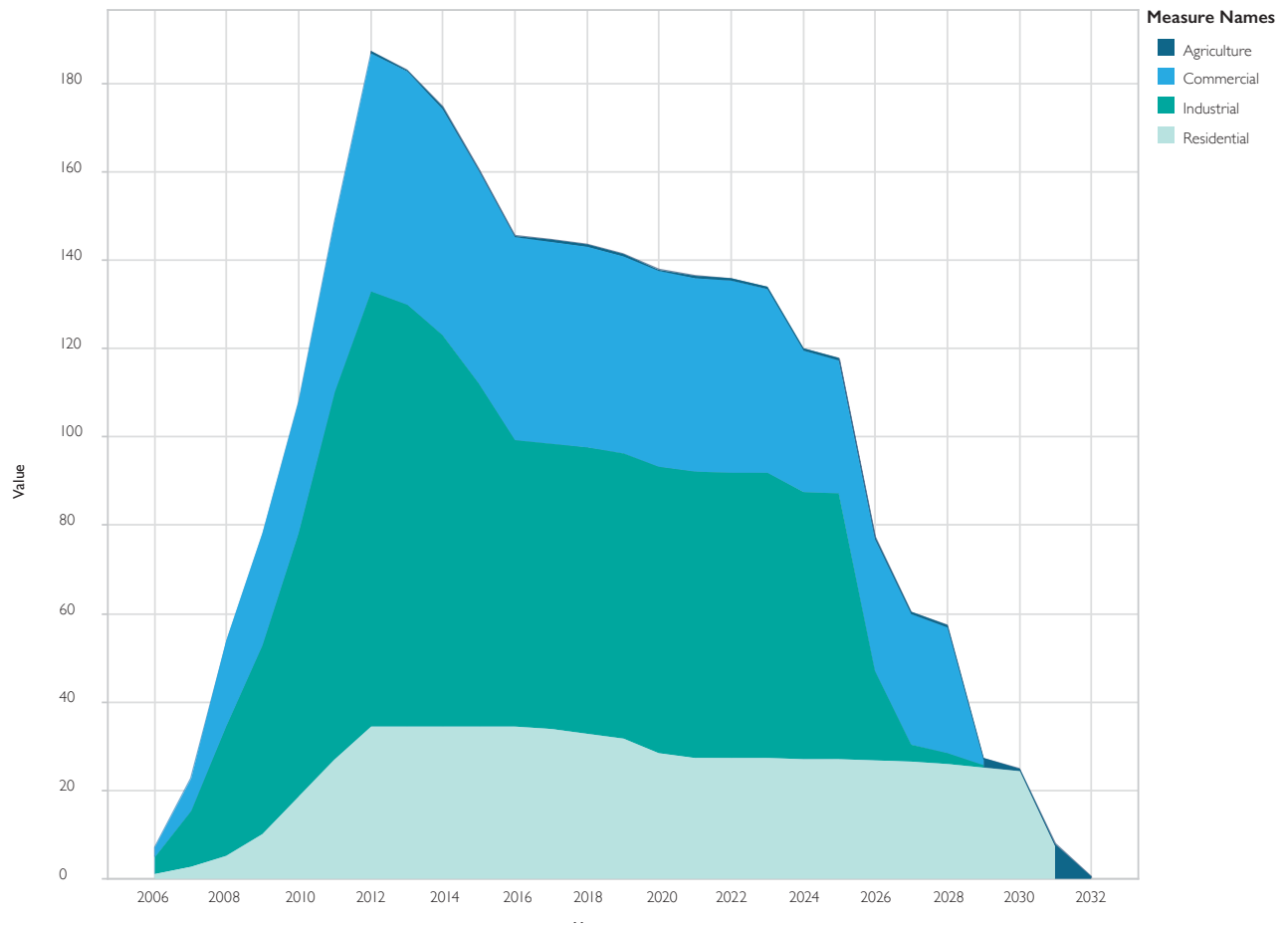
**Figure F-5** SCE Lifecycle Savings (GWh) by Sector, 2006-2012



F-4

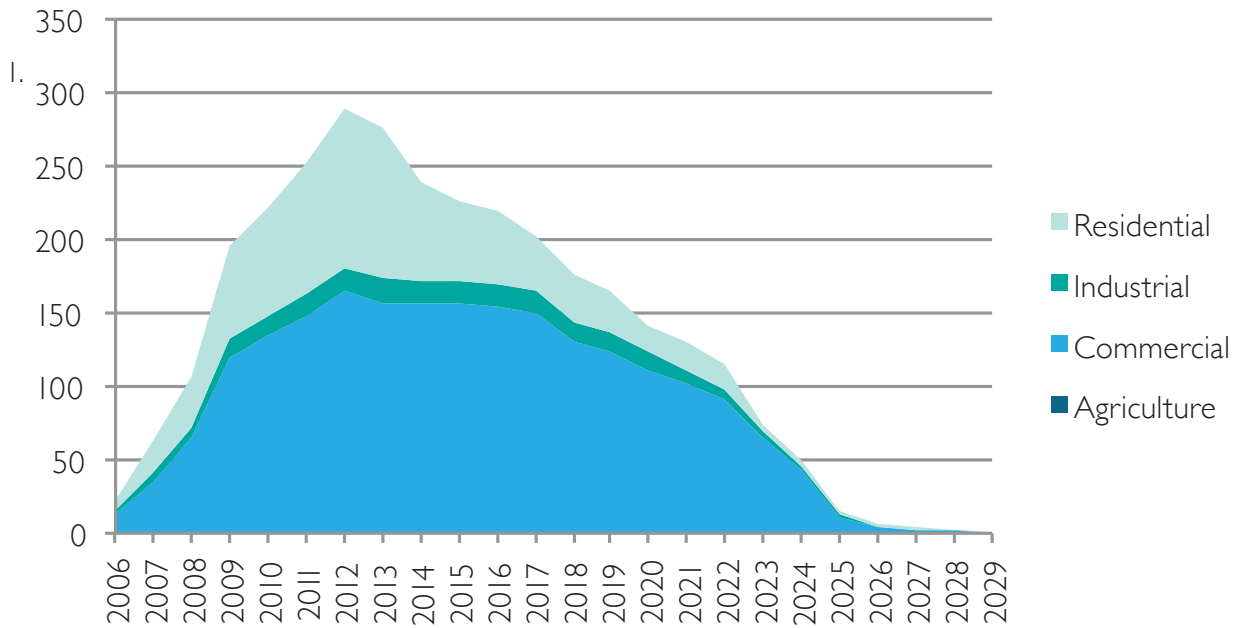


**Figure F-6** SoCalGas Lifecycle Savings (MMTherms) by Sector, 2006-2012



## SDG&E

**Figure F-7** SDG&E Lifecycle Savings (GWh) by Sector, 2006-2012



**Figure F-8** SDG&E Lifecycle Savings (Therms) by Sector, 2006-2012

